

## Airborne Tropical Tropopause Experiment (ATTREX) 2014 Western Pacific Campaign

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The NASA Airborne Tropical Tropopause Experiment (ATTREX) is a series of airborne campaigns focused on understanding physical processes in the Tropical Tropopause Layer (TTL) and their role in atmospheric chemistry and climate. ATTREX is using the high-altitude, long-duration NASA Global Hawk Unmanned Air System to make in situ and remote-sensing measurements spanning the Pacific. A particular ATTREX emphasis is to better understand the dehydration of air as it passes through the cold tropical tropopause region. The ATTREX payload contains 12 in situ and remote sensing instruments that measure water vapor, clouds, multiple gaseous tracers (CO, CO<sub>2</sub>, CH<sub>4</sub>, NMHC, SF<sub>6</sub>, CFCs, N<sub>2</sub>O), reactive chemical compounds (O<sub>3</sub>, BrO, NO<sub>2</sub>), meteorological parameters, and radiative fluxes.

During January-March, 2014, the Global Hawk was deployed to Guam for ATTREX flights. Six science flights were conducted from Guam (in addition to the transits across the Pacific), resulting in over 100 hours of Western Pacific TTL sampling and about 180 vertical profiles through the TTL. I will provide an overview of the dataset, with examples of the measurements including meteorological parameters, clouds and water vapor, and chemical tracers.